

POWER FEED INSTALLATION
Model M-9114 Table Feed
Bridgeport Series II Mill
Replaces Bridgeport 6F Electronic Feed



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-57485	Power Feed Installation
ND-6292	Type 150 Servo Drive
ND-6293	Type 140 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

- Step 1:* Move the table to the extreme left.
- Step 2:* Remove the Bridgeport power feed from the right end of the machine, including the coupling to the lead screw. Save the cap screws that attached the feed to the table.
- Step 3:* Remove and retain the following parts from the Bridgeport 6F feed: dial, dial nut, handcrank, spring, spring seat washer, and handcrank sleeve. Remove the coolant tray.

POWER FEED INSTALLATION

- Step 1:* Slide the shaft extension onto the lead screw shaft. Using the existing hole on the shaft extension as a pilot hole, drill 3/16 diameter hole through both parts while pushing shaft extension against the lead screw.
- Step 2:* Install the 3/16 diameter roll pin flush. File if necessary to remove raised portion of roll pin.
- Step 3:* Install seal #57450 onto the shaft extension.
- Step 4:* Replace the coolant tray. Slide the bearing race onto the shaft extension. Slide the table feed assembly over the shaft and bolt to the coolant tray.

BEVEL GEAR INSTALLATION

- Step 1:* Install the Woodruff key.
- Step 2:* Follow drawing NA-5444 for installation of the bevel gear. Adjust for proper gear backlash.

DIAL AND HANDCRANK INSTALLATION

- Step 1:* After getting the proper backlash, the dial should be adjusted to obtain .005" spacing from the face of the power feed. This is important in order to keep chips from entering the gear train. Plastic and brass washers are provided for this. Shim as required.
- Step 2:* Add the dial nut. In the following sequence, slide on the clutch, the existing sleeve, the existing spring, and the existing handcrank.

Step 3: Push to engage the handcrank with the clutch and turn to move the table. The lead screw should turn freely without binding.

IF: If required, you can adjust the alignment by loosening the four feed holddown screws and re-tightening when no binding is experienced.

Step 4: Use 3/16 drill to transfer the two roll pin holes 3/8" deep into the coolant tray. Add 3/16 x 1" roll pins.

LIMIT SWITCH INSTALLATION

Step 1: Remove the standard table stop pieces and install the table stop pieces furnished. Put the standard stops back in a position to prevent feed stops from being set beyond extreme table travel.

Step 2: Install the limit switch using two 3/8-16 x 1-1/4" long socket head cap screws.

NOTE *For proper operation, the electrical limit switch should be engaged .4 inch before the mechanical stop to allow for coasting of the table. The T-stops are often not symmetrical and may need to be ground to obtain proper operation.*

Step 4: Put the cable clamp on the cable and secure to the right-hand chip scraper screw.

OPERATION

See separate *Servo Power Feed Operation* sheet. Plug the table feed into a source of 120 volt, 50 or 60 cycle power.

WARNINGS

Check hand crank clearances before operation.

Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4") to prevent injury. Modification of existing hand crank or replacement may be required.

Do not operate without proper clearance!

Prevent contact during fast traverses.

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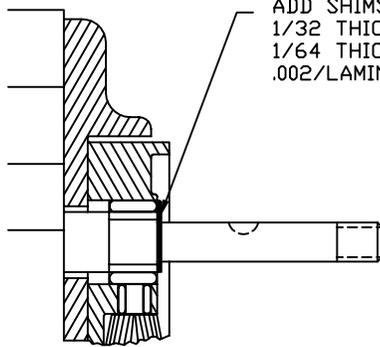


KEY IS REMOVED DURING SHIMMING

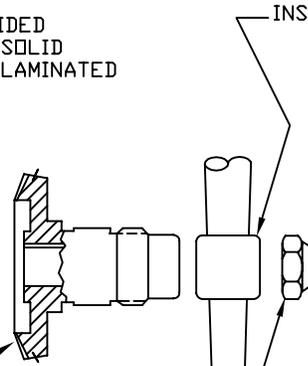


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



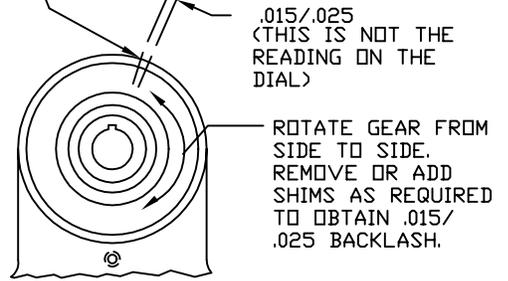
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



.015/.025
(THIS IS NOT THE READING ON THE DIAL)

ROTATE GEAR FROM SIDE TO SIDE.
REMOVE OR ADD SHIMS AS REQUIRED TO OBTAIN .015/.025 BACKLASH.

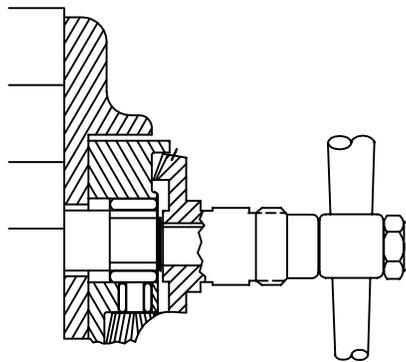
STEP 2
SHIMMING BEVEL GEAR

TIGHTEN NUT.

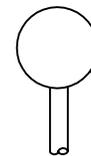
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

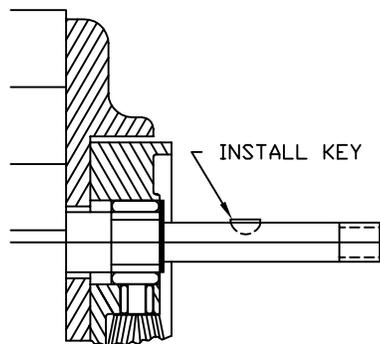


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

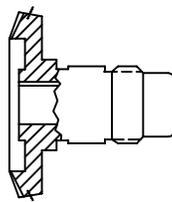


CONTROL HANDLE @ NEUTRAL POSITION

STEP 3
DOUBLE CHECK OF SHIMMING



INSTALL KEY



SEAL

REMOVE GEAR, PACK WITH GREASE. (DO NOT USE SILICONE TYPE GREASE) REPLACE GEAR. (DO NOT LOSE ANY SHIMS)

PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

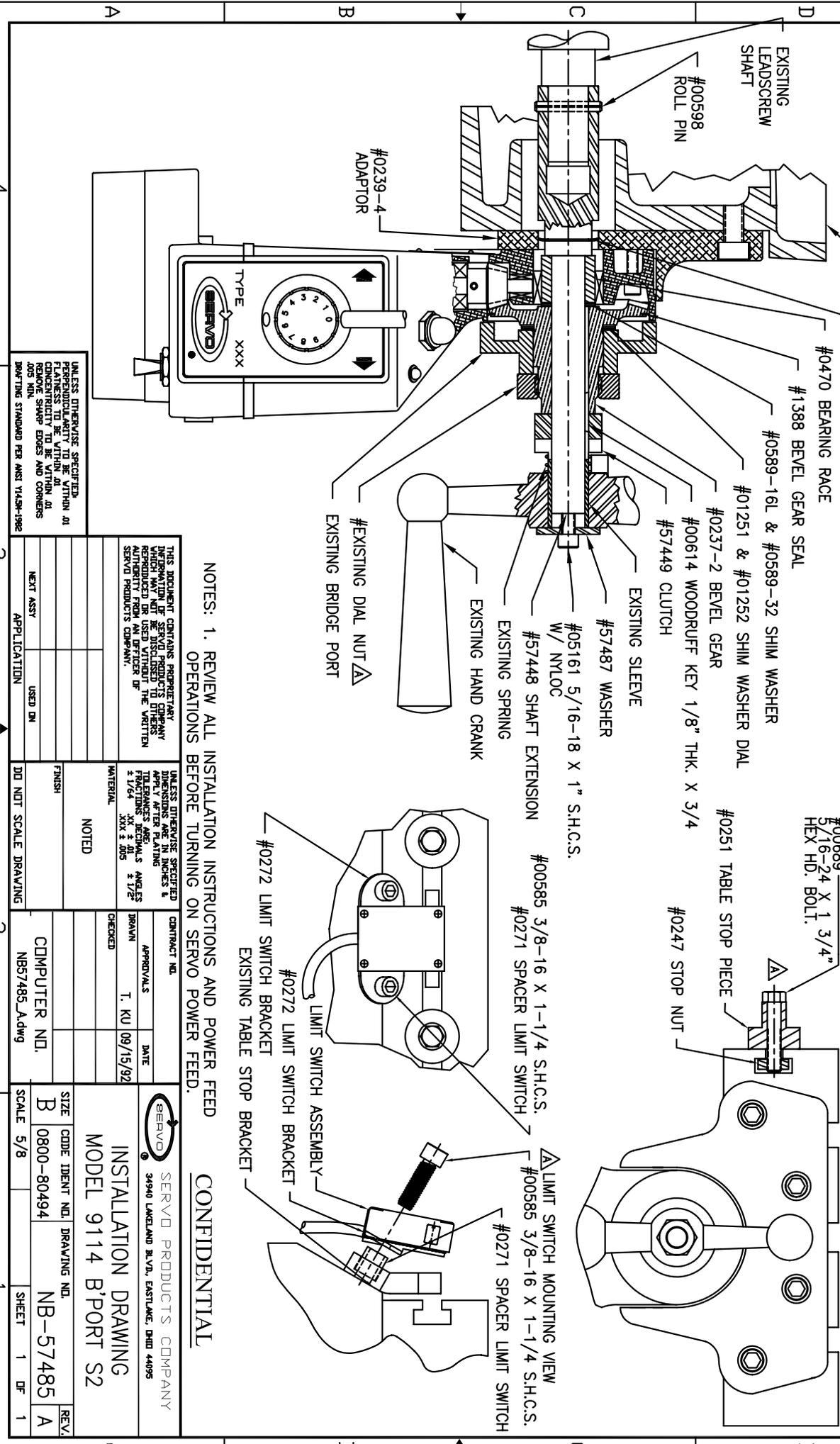
SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

REVISION		DATE	DRAWN	CHECKED
1		6/21/06	B.G.W.	R.R.A.

ECD	LTR	DESCRIPTION
N/A	A	ADDED LIMIT SWITCH MOUNTING VIEWS: EXISTING WAS
		22551; ADDED TABLE STOP VIEW



NOTES: 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.

CONFIDENTIAL

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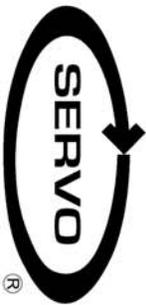
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CONTRACT NO.	APPROVALS	DATE
	T. KU	09/15/92
DRAWN	CHECKED	

FINISH	DID NOT SCALE DRAWING	COMPUTER NO.
		NB57485_A.dwg
APPLICATION	USED IN	

SIZE	CODE IDENT NO.	DRAWING NO.
B	0800-80494	NB-57485
SCALE	5/8	SHEET 1 OF 1

SERVO PRODUCTS COMPANY
34940 LAKELAND BLVD., EASTLAC, OHIO 44095
INSTALLATION DRAWING
MODEL 9114 B'PORT S2



M-9114 TABLE FEED PARTS IDENTIFICATION LIST

- 00579 Clamp Qty = 1
- 01050 Clamp Qty = 1
- 00688 Phil Pan Head Screw Qty = 1
- 00689 Hex Hd Bolt Qty = 2
- 0247 Stop Nut Qty = 2
- 0251 Limit Stop Qty = 2
- 0266 Limit Switch Gasket Qty = 1
- 0272 Limit Switch Bracket Qty = 1
- 06928 Phil Pan Head Screw Qty = 4
- 0271 Limit Switch Spacer Qty = 2
- 00585 Soc Head Cap Screw Qty = 2

- 05161 SHCS w/Nylock Qty = 1
- 57487 Washer Qty = 1
- 00614 Key Qty = 1
- 57448 Shaft Extension Qty = 1
- 00598 Roll Pin Qty = 1
- 57449 Clutch Qty = 1
- 57450 Seal Qty = 1
- 01251 Brass Shim Qty = 5
- 01252 Plastic Shim Qty = 2

- 0237-2 Bevel Gear Qty = 1
- 0589-32 .032 Shim Qty = 2
- 0589-16L .016 Shim Qty = 2
- 0470 Bearing Race Qty = 1
- 00586 Soc Hd Cap Screw Qty = 3
- 00595 Roll Pin Qty = 2
- 00596 Roll Pin Qty = 2
- 0239-4 Adaptor Qty = 1